The Egg Drop Experiment

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The Scientific Method

Question: Will our egg survive the egg drop?

Observations: We used a model egg to see how big to make the bed, because an egg is delicate so we used cottonballs, bubble wrap, and tape to secure our egg. The weather conditions at the time were partly sunny with a high of 70 degrees. Their also was a wind speed at 6mph.

**Hypothesize:** We, Rachel and I, think our egg will survive the egg drop.

**Expierement:**

First, we got a size 13 shoebox and glued our big popsicle sticks to the middle of the floor. Next, we bundled the 48 little popsicle sticks and wrapped a rubber band around the popsicle sticks to hold them in place. The bundles were put into a set of 12 so that they the egg wouldn’t roll around and it would stay in place. Then we hot glued the 12 bundles of sticks to the bottom of the big sticks. After that, we placed the model egg to see if it would fit. Next, we placed one piece of bubblewrap at the bottom of the bed and 4 cottonballs at each of the sides. Then, we got our egg and wrpped it in bubblewrap. We then taped the bubble wrap to the egg for safety reasons. Next, we placed the egg inside its “bed” and then added 3 coptton balls to the top of bed. After that, we placed the bubblewrap at the top of the bed and then layered it in tape. Finally, we blew up our balloons, tied them to our shoebox, using string and were ready to test out our egg for the drop!

**Materials:**

1. 5 big popsicle stick

2. 48 little popsicle sticks

3. 2 pieces of bubblewrap

4. 7 cottonballs

5. An egg

6. A size 13 shoebox

7. 2 balloons

8. lots of tape

9. A hot glue gun

10. String

11. 4 rubber bands

Varibles:

Control Varible: Everyone dropped their egg from a 10 ft ladder on the pavement when it was 70 degrees outside and the wind speed was 6mph.

Dependent Varible: What is different from other people’s egg drop expieremnets and ours is we used a size 13 shoebox. Also others didn’t even use a shoebox, they made a box out of popsicles! With ours, we had the design of a bed instead of a cup design with cottonballs/bubblewrap at the bottom and something over the top, like a balnket you would pull over yourself at the. We also had the idea of having the bubblewrap wrapped around the egg as the design of pajamas.

Analyze Results:

1. What worked to save our egg was the design of how we made the bed so our egg wouldn’t move around in the box. I also think the layers of tape that we used to secure the egg. The cottonballs and bubblewrap also cushioned the fall for our egg.
2. What didn’t work was our idea to use the balloons to slow the fall. The balloons only fell faster than the box.

Conclusion: Our egg survived the drop!

Communicate Results: I woulld have added some tissues and removed the balloons because they probably quicken the speed of the drop. The balloons provided no support and did not help slow the fall in anyway.